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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,146	04/27/2005	David Long	100750.0001US	8969
34284	7590	08/21/2007		
Rutan & Tucker, LLP. Hani Z. Sayed 611 ANTON BLVD SUITE 1400 COSTA MESA, CA 92626			EXAMINER VANOY, TIMOTHY C	
			ART UNIT 1754	PAPER NUMBER
			MAIL DATE 08/21/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/507,146

Applicant(s)

LONG, DAVID

Examiner

Timothy C. Vanoy

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-19 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>Nov. 8, 2004</u>  | 6) <input type="checkbox"/> Other: ____                           |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The U. S. Patent number "62100154" set forth on the Applicant's 1449 submitted with the Information Disclosure Statement filed on Nov. 8, 2004 has not been considered because the citation is in error. The Applicant's apparent intended citation (i. e. U. S. Pat. 6,210,154) has been considered and cited on a PTO-892 form.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 57-35,925 A to Murakami et al.

The English abstract of JP-925 sets forth that the NO<sub>x</sub> contained in the exhaust gas emitted from a coal combustion process is reduced by reaction with pulverized coal injected into the exhaust gas. The NO<sub>x</sub> is reduced by the hydrocarbons, ammonia and cyanide generated from the pulverized coal. Paragraph section no. 6 on pg. 2 in the text of JP-925 seems to teach that the reaction between the NO<sub>x</sub> and the chemical agents occur at a temperature as low as 900 °C (1,652 °F).

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Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 55-139,819 A to Takeuchi et al.

Paragraph no. 4 on pg. 2 within the text of JP-819 appears to describe a prior art process for removing NO<sub>x</sub> out of an exhaust gas via reaction hydrogen cyanide at a temperature below 1,400 °C (2,552 °F).

Claims 3-19 have not been rejected under either 35USC102 or 35USC103 because these claims have limited to the source of the cyanide to a waste material, whereas JP-925 has limited the source of the cyanide to pulverized coal (which is normally considered to be a "fuel").

The following references are made of record:

The Applicant's apparent intended citation of U. S. Pat. 6,210,154 set forth on the Applicant's PTO-1449;

U. S. Pat. 5,746,144 disclosing the reaction between NO<sub>x</sub> and cyanide at a temperature of 1800 to 2700 °F (please see col. 5 lns. 42-46 and col. 6 lns. 49-53);

U. S. Pat. 5,531,973 disclosing the reaction between NO<sub>x</sub> and cyanide at temperatures exceeding 1,000 °C (1,832 °F) (please see claims 1 and 2);

U. S. Pat. 5,401,478 disclosing the reaction between NO<sub>x</sub> and a reducing agent that may be hydrogen cyanide at temperatures ranging from 200 to 600 °C (392 to 1,112 °F): please see col. 5 lns. 14-17 and also col. 6 lns. 30-32; and

U. S. Pat. 5,043,150 disclosing the reaction between  $N_2O$  and HCN at temperatures ranging from 977 to 1,027 °C (1,791 to 1,881 °F): please see col. 2 lns. 8-11.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy C. Vanoy whose telephone number is 571-272-8158. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Timothy C Vanoy*  
Timothy C Vanoy  
Primary Examiner  
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